

# ABUS 4-Channel Compact Digital Recorder TVVR30001



## User manual

Version 1.2



### English

These user manual contains important information for installation and operation.

This should be also noted when this product is passed on to a third party.

Therefore look after these operating instructions for future reference!

A list of contents with the corresponding page number can be found in the index.



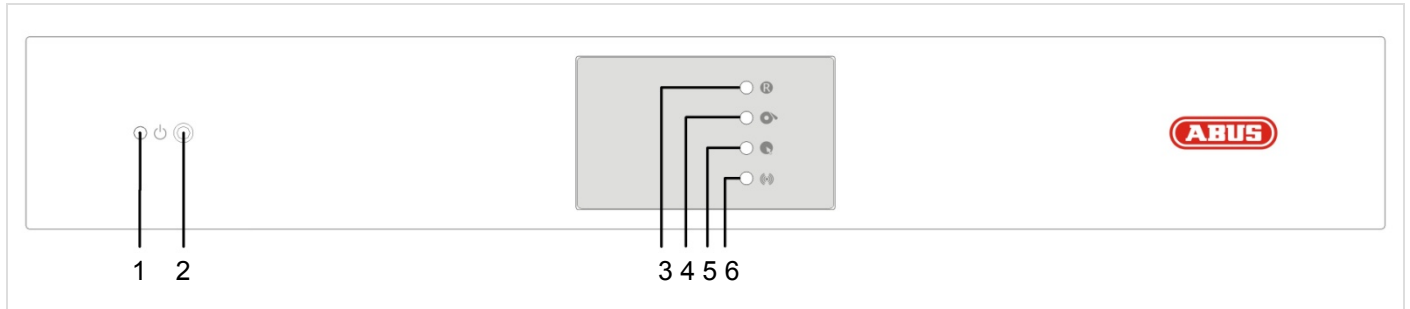
Pay attention to the accompanying documents on “Control via the web interface” and “Software”. These can also be found on the Internet under [www.abus-sc.com](http://www.abus-sc.com)

## Device overview

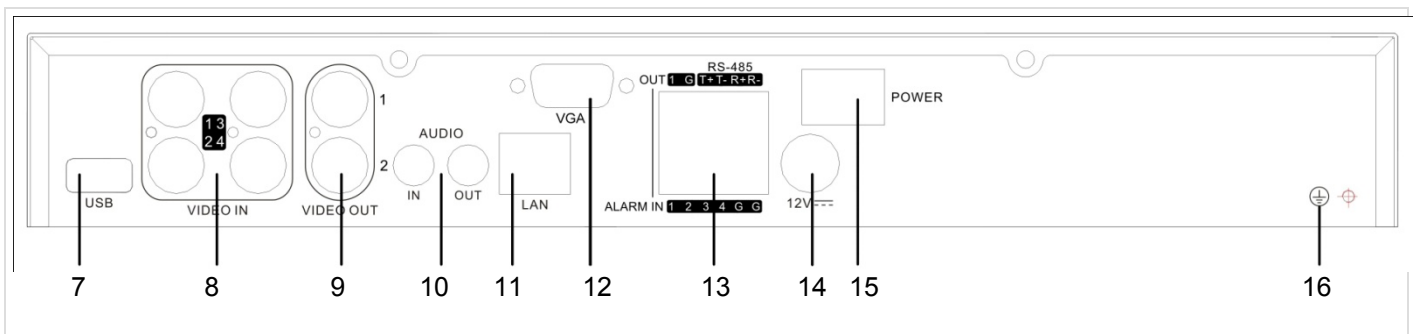


See **System operation** on page 12.

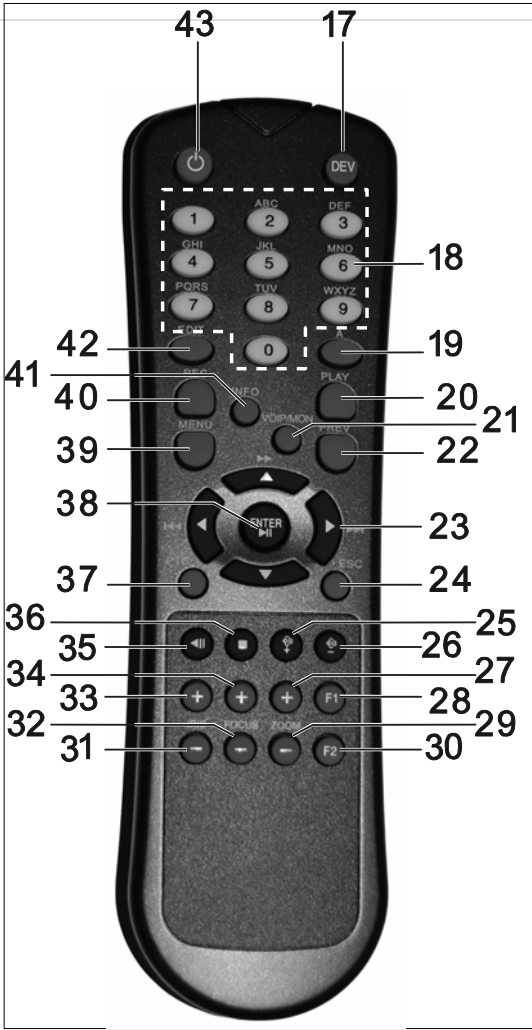
### Front



### Rear



Remote control



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### Quick guide

#### Before you start

The following preparatory steps must be made:

1. Pay attention to the general information, safety information and notes on setting up and connecting the device (see page 8).
2. Check the contents of the package for completeness and damage.
3. Insert the batteries into the remote control.

#### Password



##### Warning

Remember to note the admin password.  
The preset password is

**„1 2 3 4 5“.**

#### Installing the HDD



##### Warning

Switch off the device and disconnect it from the mains power supply.  
Pay attention to the required grounding of the device to avoid static discharge.

1. Install the HDD. Use the data and power cable supplied.
2. Firstly, establish the connection to the motherboard using the red data cable (small connector).
3. Connect the power supply cable (large 5-pin connector).
4. Check that the connections are secure.
5. Close the housing.

#### Establishing the connections

1. Connect the analogue cameras with BNC connections 1 to 4.
2. Connect the audio connections.
3. Connect the LAN connection on the device to the network.
4. Connect the sensors to the alarm inputs.
5. Connect the monitor to the BNC or VGA connection.
6. Connect the mouse to the USB port.
7. Establish a connection to the mains power supply.
8. Switch on the device using the POWER switch on the rear. The DVR status display on the front of the device lights up.



##### Note

Check the ABUS homepage ([www.abus-sc.com](http://www.abus-sc.com)) if for this device any firmware updates are available and install these

## Important safety information

### Explanation of symbols

The following symbols are used in this manual and on the device:

| Symbol                                                                            | Signal word | Meaning                                                                    |
|-----------------------------------------------------------------------------------|-------------|----------------------------------------------------------------------------|
|  | Warning     | Indicates a risk of injury or health hazards.                              |
|  | Warning     | Indicates a risk of injury or health hazards caused by electrical voltage. |
|  | Important   | Indicates possible damage to the device/accessories.                       |
|  | Note        | Indicates important information.                                           |

The following labels are used in the text:

|        | Meaning                                                          |
|--------|------------------------------------------------------------------|
| 1. ... | Set of tasks or instructions with a defined sequence in the text |
| 2. ... | Set of points or warnings without a defined sequence in the text |
| • ...  | Set of points or warnings without a defined sequence in the text |
| • ...  | Set of points or warnings without a defined sequence in the text |

### Proper use

Only use the device for the purpose which it was designed and built for. Any other use is considered inappropriate.

This device may only be used for the following purpose(s):

- This digital recorder is used in combination with connected video signal sources (B/W and colour cameras) and video output devices (CRT or TFT monitors) for object surveillance.



#### Note

Data storage is subject to national data-protection guidelines.

During installation, inform your customers regarding the existence of these guidelines.

### General

Before using the device for the first time, read the following instructions carefully and pay attention to all warnings, even if you are already familiar with electronic devices.



#### Warning

All guarantee claims become invalid for damage caused by non-compliance with these operating instructions.

We cannot be held liable for resulting damage.



#### Warning

We cannot be held liable in the event of material or personal damage caused by improper operation or non-compliance with the safety information.

All guarantee claims are invalid in such cases.

Keep this manual in a safe place for future reference.

If you pass on or sell the device, you must also include this user manual.

This device has been manufactured in accordance with international safety standards.

### Power supply

- Only operate this device through a power source which supplies the mains power specified on the type plate.
- If you are unsure of the power supply at the installation location, contact your power supply company.



#### Warning

Avoid data loss!

Always use an uninterruptible power supply (UPS) with overvoltage protection.

- Disconnect the device from the mains power supply before carrying out maintenance or installation work.
- The on/off switch does not completely disconnect the device from the mains power supply.
- To disconnect the device completely from the mains power supply, the plug must be disconnected from the mains socket. Therefore, the device should be positioned so that direct and unobstructed access to the mains socket is guaranteed at all times and the plug can be disconnected immediately in an emergency.
- To avoid the possibility of fires, the plug should always be disconnected from the network socket if the device is not used for long periods. Disconnect the device from the mains power supply before impending electrical storms, or use an uninterruptible power supply.

## Important safety information



### Warning

Never open the device on your own! There is a risk of electric shocks!  
If it is necessary to open the device, consult trained personnel or your local maintenance specialist.

- The installation or modification of a HDD should only be made by trained personnel or your local maintenance specialist.



### Warning

The installation of additional equipment or modification of the device invalidates your guarantee if not carried out by trained personnel.  
We recommend having the HDD installed by a maintenance specialist.  
Your guarantee is invalidated in the event of improper installation of the HDD.

## Overloading/Overvoltage

- Avoid overloading of mains sockets, extension cables and adapters as this can result in fires or electric shocks.
- Use overvoltage protection to prevent damage caused by overvoltage (e.g. electrical storms).

## Cables

- Always hold cables by the connector, and do not pull the cable itself.
- Never touch the mains cable with wet hands, as this can lead to a short circuit or electric shock.
- Never position the device, furniture or other heavy items on the cable. Ensure that the cable does not become kinked, especially on the connector and sockets.
- Never knot the cable, and do not tie it to other cables.
- All cables should be laid so that they cannot be stepped on or cause an obstruction.
- A damaged mains cable can cause a fire or electric shock. Check the mains cable from time to time.
- Never modify or manipulate the mains cable or plug.
- Do not use plug adapters or extension cables that do not conform to the applicable safety standards, and do not make alterations to power supply cables or mains cables.

## Installation location/Operating environment

- Position the device on a firm, level surface and do not place any heavy objects on the device.
- The device is not designed for operation in rooms subject to high temperatures or moisture (e.g. bathrooms), or in excessively dusty rooms.

- Operating temperature and ambient humidity: -10 °C to 55 °C, maximum 85 % relative humidity.  
The device may only be operated in moderate climate conditions.

Ensure the following:

- Sufficient ventilation must be present at all times (do not place the device in a storage rack, on thick carpets, on a bed or anywhere where the ventilation slots are covered. Make sure that a gap of at least 10 cm is present on all sides).
- The device must not be exposed to direct heat sources (e.g. heaters).
- The device must not be exposed to direct sunlight or strong artificial light.
- The device must not be placed in close proximity to magnetic fields (e.g. loudspeakers).
- Naked flames (e.g. candles) must not be placed on or near the device.
- Contact with spraying or dripping water and aggressive liquids must be avoided.
- The device must not be operated in close proximity to water, and must not be submerged under any circumstances (do not place objects containing water on or near the device, such as vases or drinks).
- Foreign objects must not penetrate the device.
- The device must not be exposed to strong variations in temperature, as this can lead to condensation and electrical short circuits.
- The device must not be exposed to excessive jolts or vibrations.

## Remote control

- Remove all batteries if the device will not be used for a sustained period, as these can leak and damage the device.

## Care and maintenance

Maintenance is necessary if the device has been damaged. This includes damage to the plug, mains cable and housing, penetration of the interior by liquids or foreign objects, exposure to rain or moisture or when the device does not work properly or has fallen.

- Disconnect the device from the mains power supply before maintenance (e.g. cleaning).
- If smoke develops or unusual noises or odours are detected, then switch off the device immediately and pull the mains plug from the socket. In such cases, the device should not be used until it has been inspected by a qualified technician.
- Maintenance work should only be carried out by qualified specialists.
- Never open the housing on the device or accessories. There is a risk of fatal injury due to an electric shock when the housing is opened.
- Clean the device housing and remote control with a damp cloth.
- Do not use solvents, white spirit or thinners as these can damage the surface of the device.
- Do not use any of the following substances:
  - Salt water, insecticides, solvents containing chlorine or acids (ammonium chloride) or scouring powder.
- Gently rub the surface with a cotton cloth until it is completely dry.



### Warning

The device works under dangerous voltages. The device must only be opened by authorised specialists. All maintenance and service work must be carried out by authorised firms. Improper repairs can expose device users to the risk of fatal injury.

## Accessories

- Only connect devices that are suitable for the intended purpose. Otherwise, hazardous situations or damage to the device can occur.

## Putting into operation

- Observe all safety and operating instructions before putting the device into operation for the first time.
- Only open the housing to install the HDD.



### Warning

When installing the device in an existing video surveillance system, ensure that all devices are disconnected from the mains power supply and low-voltage circuit.



### Warning

If in doubt, have a specialist technician carry out assembly, installation and connection of the device.

Improper or unprofessional work on the mains power supply or domestic installation puts both you and other persons at risk.

Connect the installations so that the mains power circuit and low-voltage circuit always run separately from each other. They should not be connected at any point or become connected as a result of a malfunction.

## Children and the device

- Do not allow children access to electrical devices. Never allow children to use electrical devices without supervision. Children may not be able to accurately detect possible risks. Small parts can be life-threatening if swallowed.
- Keep batteries away from small children. Call for medical assistance immediately if a battery is swallowed.
- Keep packaging materials away from children (danger of suffocation).
- This device should not be used by children. If used improperly, spring-loaded parts can be ejected and cause injuries to children (e.g. eye injuries).

### Introduction

Dear customer,

Thank you for purchasing this product.

This product complies with current domestic and European regulations. Conformity has been proven, and all related certifications are available from the manufacturer on request ([www.abus-sc.com](http://www.abus-sc.com)).

To maintain this status and to guarantee safe operation, it is your obligation to observe these operating instructions!

Read the entire operating manual carefully before putting the product into operation and pay attention to all operating and safety information!

All company names and product descriptions are trademarks of the corresponding owner. All rights reserved.

In the event of questions, please contact your local maintenance specialist or dealer.

#### **i** Disclaimer

These operating instructions have been produced with the greatest care. Should you discover any missing information or inaccuracies, please contact us under the address shown on the back of the manual. ABUS Security-Center GmbH does not accept any liability for technical and typographical errors, and reserves the right to make changes to the product and operating instructions at any time and without prior warning. ABUS Security-Center GmbH is not liable or responsible for direct or indirect damage resulting from the equipment, performance and use of this product. No forms of guarantee are accepted for the contents of this document.

### General information

In order to use the device correctly, read this user manual carefully and keep it in a safe place for later use.

This manual contains instructions on recorder operation and maintenance. Consult an authorised specialist if the device needs to be repaired.

### Unpacking the device

Handle the device with extreme care when unpacking it.

The packaging is made of reusable materials, and should always be passed on for recycling.

We recommend the following:

Paper, plastic packaging, cardboard and corrugated cardboard should be disposed of in the appropriate recycling containers.

If recycling containers are not available in your local area, then you can dispose of these materials as domestic waste.

If the original packaging has been damaged, inspect the device. If the device shows signs of damage, then return it in the original packaging and contact the manufacturer.

### Scope of delivery

- ABUS Digital Recorder
- Power supply unit and mains cable
- Remote control (without batteries)
- Connection cable and screws for HDD
- Software CD
- User manual

## System operation

### General information

The device can be controlled as follows:

- By remote control
- Using the USB mouse

### Operating elements on the device



#### Note

Pay attention to the overview on page 3.

| No. | Name<br>Function                                                  |
|-----|-------------------------------------------------------------------|
| 1   | <b>Power LED</b><br>Lights up blue when the system is switched on |
| 2   | <b>IR receiver</b><br>For the remote control                      |
| 3   | <b>REC LED</b><br>Lights up red during recording                  |
| 4   | <b>HDD LED</b><br>Flashes blue when the HDD is accessed           |
| 5   | <b>Network LED</b><br>Lights up red when the network is accessed  |
| 6   | <b>Alarm LED</b><br>Lights up red in the event of an alarm        |

### Connections on the rear of the device



#### Note

Pay attention to the overview on page 3.

| No. | Name<br>Function                                                                                                                                                                                                                                                                                       |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7   | <b>USB port</b> <ul style="list-style-type: none"> <li>• To connect a USB mouse</li> <li>• To connect a USB stick for data backups</li> </ul>                                                                                                                                                          |
| 8   | <b>VIDEO IN: BNC inputs</b>                                                                                                                                                                                                                                                                            |
| 9   | <b>VIDEO OUT 1: BNC monitor output</b><br><b>VIDEO OUT 2: BNC spot monitor output</b>                                                                                                                                                                                                                  |
| 10  | <b>AUDIO IN: Cinch audio input</b><br><b>AUDIO OUT: Cinch audio output</b>                                                                                                                                                                                                                             |
| 11  | <b>LAN:</b><br>10/100 MBit Ethernet LAN connection                                                                                                                                                                                                                                                     |
| 12  | <b>VGA: VGA monitor output</b>                                                                                                                                                                                                                                                                         |
| 13  | <b>ALARM IN:</b> <ul style="list-style-type: none"> <li>• Alarm input 1–4</li> <li>• G = Ground</li> </ul> <b>ALARM OUT:</b> <ul style="list-style-type: none"> <li>• Relay output and ground</li> </ul> <b>RS-485:</b> <ul style="list-style-type: none"> <li>• Connection for PTZ cameras</li> </ul> |
| 14  | <b>12 V DC power socket</b>                                                                                                                                                                                                                                                                            |
| 15  | <b>Power switch</b>                                                                                                                                                                                                                                                                                    |
| 16  | <b>Connection for grounding</b>                                                                                                                                                                                                                                                                        |

### Operating elements on the remote control



#### Note

Pay attention to the remote control diagram on page 4.

| No. | Name<br>Function                                                                                                                                                                                                                                                                                 |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 17  | <b>DEV</b><br>Assigns the remote control with the device ID                                                                                                                                                                                                                                      |
| 18  | <b>Alphanumeric keys</b> <ul style="list-style-type: none"> <li>For selecting the camera (channel) in the live view</li> <li>For entering letters and digits in system fields</li> </ul>                                                                                                         |
| 19  | <b>A</b> <ul style="list-style-type: none"> <li>Changes the entry format (upper/lower case, symbols, digits)</li> <li>Further symbols can be displayed by pressing the "0" button in symbol mode.</li> </ul>                                                                                     |
| 20  | <b>PLAY</b><br>Starts playback                                                                                                                                                                                                                                                                   |
| 21  | <b>VOIP</b><br>Not used                                                                                                                                                                                                                                                                          |
| 22  | <b>PREV</b><br>Changes the screen display in the live view                                                                                                                                                                                                                                       |
| 23  | <b>Navigation keys</b><br>During playback: <ul style="list-style-type: none"> <li>▲, ▼ Sets the speed</li> <li>◀, ▶ Previous/next day</li> </ul> In PTZ: <ul style="list-style-type: none"> <li>Camera control</li> </ul> In menus: <ul style="list-style-type: none"> <li>Navigation</li> </ul> |
| 24  | <b>ESC</b> <ul style="list-style-type: none"> <li>Exits menu</li> </ul>                                                                                                                                                                                                                          |
| 25  | Not used                                                                                                                                                                                                                                                                                         |
| 26  | Not used                                                                                                                                                                                                                                                                                         |
| 27  | <b>Zoom +:</b><br>Enlarges the image section in PTZ mode                                                                                                                                                                                                                                         |
| 28  | <b>F1:</b><br>Not used                                                                                                                                                                                                                                                                           |
| 29  | <b>Zoom -:</b><br>Reduces the image section in PTZ mode                                                                                                                                                                                                                                          |
| 30  | <b>F2:</b><br>Not used                                                                                                                                                                                                                                                                           |
| 31  | <b>IRIS-:</b> In PTZ mode: <ul style="list-style-type: none"> <li>Closes the iris</li> </ul>                                                                                                                                                                                                     |
| 32  | <b>Focus-:</b> In PTZ mode: <ul style="list-style-type: none"> <li>Reduces the image section in PTZ mode</li> </ul>                                                                                                                                                                              |
| 33  | <b>IRIS+:</b> In PTZ mode: <ul style="list-style-type: none"> <li>Opens the iris</li> </ul>                                                                                                                                                                                                      |
| 34  | <b>Focus+:</b> In PTZ mode: <ul style="list-style-type: none"> <li>Enlarges the image section in PTZ mode</li> </ul>                                                                                                                                                                             |

| No. | Name<br>Function                                                                                                                                                                                             |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 35  | Not used                                                                                                                                                                                                     |
| 36  | Not used                                                                                                                                                                                                     |
| 37  | <b>PTZ</b><br>Switches on PTZ control                                                                                                                                                                        |
| 38  | <b>Enter key ►II</b> <ul style="list-style-type: none"> <li>Confirms the selection</li> <li>Ticks/unticks the boxes</li> </ul> During playback: <ul style="list-style-type: none"> <li>PLAY/PAUSE</li> </ul> |
| 39  | <b>MENU</b> <ul style="list-style-type: none"> <li>Calls up the main menu</li> <li>Switches the key tones on and off (press and hold down for 5 seconds)</li> </ul>                                          |
| 40  | <b>REC</b><br>Opens/starts manual recording                                                                                                                                                                  |
| 41  | Not used                                                                                                                                                                                                     |
| 42  | Deletes character during entry                                                                                                                                                                               |
| 43  | <b>POWER</b><br>On/Off switch                                                                                                                                                                                |

### Mouse operation



#### Note

Further descriptions in these operating instructions can be accessed with the mouse.

The device is suitable for use with a USB mouse. Connect the mouse to the USB port.

| Button       | Function                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Left         | Single-click <ul style="list-style-type: none"> <li>Selection in menu, activation of an entry field or tab</li> </ul> Double-click <ul style="list-style-type: none"> <li>Switches between the screen display of single and multiple images in the live view and during playback</li> </ul> Click and drag <ul style="list-style-type: none"> <li>In PTZ mode: Camera control</li> <li>Set-up of alarm areas or zones</li> </ul> |
| Right        | Single-click <ul style="list-style-type: none"> <li>Calls up the pop-up menu</li> </ul>                                                                                                                                                                                                                                                                                                                                          |
| Scroll wheel | In full-screen live view <ul style="list-style-type: none"> <li>Shows previous/next camera</li> </ul> In menus: <ul style="list-style-type: none"> <li>Selects/changes settings</li> </ul>                                                                                                                                                                                                                                       |

## Starting the device



### Important

The device must only be operated with the mains power specified on the type plate.

For safety reasons, use an uninterruptible power supply (UPS).

After the device has been connected to the power supply and the main switch on the rear of the device is switched on, the power LED lights up.

The device carries out a self-test during the start-up procedure.

## On-screen keyboard

The on-screen keyboard appears after clicking on a text entry field with the mouse:



The keys have a similar function as on a mobile phone.

- Each key has more than one character.
- Pressing the “A” key scrolls through the following modes:
  - Numbers
  - Uppercase
  - Lowercase
  - Special characters
 (press the “0” key to display further symbols)
- Press the same key repeatedly to get the character you require.
- To delete the character in front of the cursor, click on “EDIT”.

## Displays on the monitor

The device shows the date and time, camera name and whether a recording is in progress.

- Continuous recording: Blue “R”
- Event recording: Red “R”

## Live view

### Overview

The live view starts automatically after the device is switched on.

The signals of the connected cameras are displayed on the main screen.

- By double-clicking the left mouse key, you can display the camera image as a full-screen view or switch back to the original view.

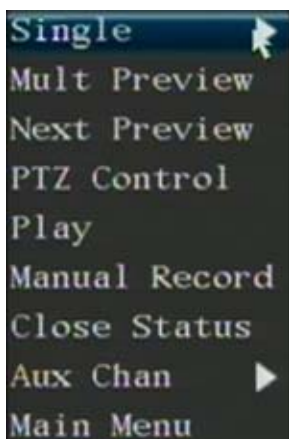
### Pop-up menu for mouse operation



#### Note

Press the right mouse button when the cursor is positioned on a live image.

The following settings can be made. The arrow pointing to the right indicates that a sub-menu is opened for selection:



|               |                                              |
|---------------|----------------------------------------------|
| Single        | Full-screen view for selected camera         |
| Mult Preview  | 4x camera view                               |
| Next Preview  | Displays the next camera in full-screen view |
| PTZ Control   | Activates PTZ mode                           |
| Play          | Switches to playback mode                    |
| Manual Record | Starts/finishes recording                    |
| Close Status  | Opens/closes the recording status symbol     |
| Aux Chan      | Displays camera on the Aux chan              |
| Main menu     | Opens the main menu                          |

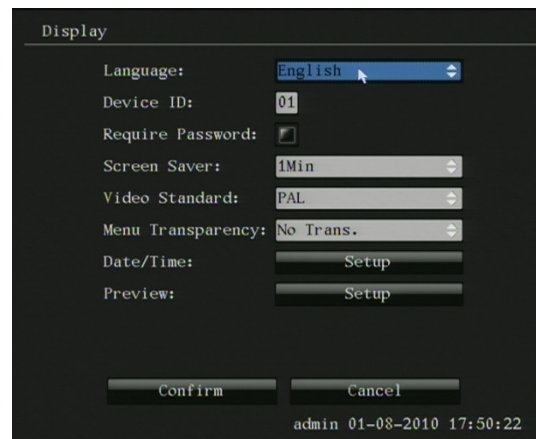
### Settings



#### Note

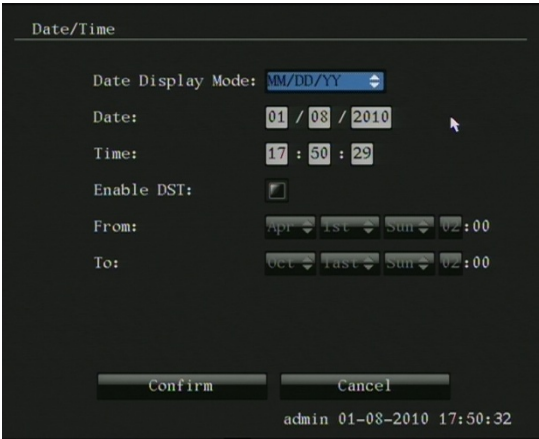
The live view can be set as follows.

Open the main menu and click on Display:



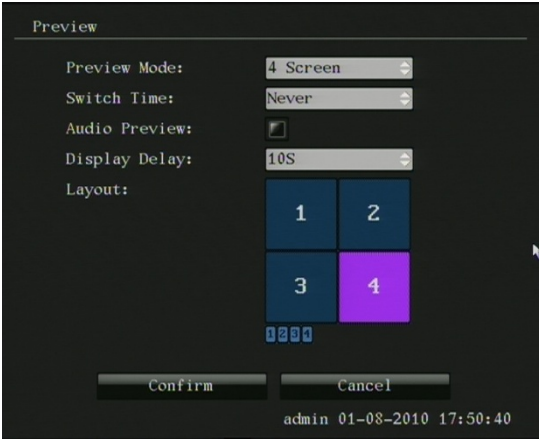
|                   |                                                                                                                           |
|-------------------|---------------------------------------------------------------------------------------------------------------------------|
| Language          | User interface language                                                                                                   |
| Device ID         | Used for unique identification when using remote control                                                                  |
| Require Password  | Activates/deactivates password prompt (when accessing via the network, the password is still needed despite deactivation) |
| Video Standard    | PAL / NTSC                                                                                                                |
| Menu Transparency | Transparency of the main menu                                                                                             |
| Date/Time         | Time, date and DST                                                                                                        |
| Preview           | Stop Auto-switch, camera identification                                                                                   |

Setting the date/time



|                   |                                                                        |
|-------------------|------------------------------------------------------------------------|
| Date Display Mode | DD/MM/YY, MM/DD/YY, YY/MM/DD                                           |
| Date              | To enter the day, month and year                                       |
| Time              | To enter the hour, minute and second                                   |
| Enable DST        | Daylight Saving Time Bias: Correction of the DST to the reference time |
| From              | DST starts                                                             |
| To                | DST ends                                                               |

Setting the preview

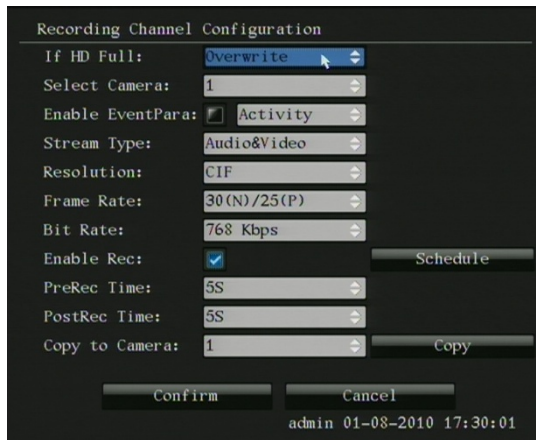


|               |                                                                                         |
|---------------|-----------------------------------------------------------------------------------------|
| Preview       | Default setting in the preview: Full-screen, 4x view                                    |
| Switch Time   | Switch time between the cameras in the full-screen view: Never, 5 seconds .. 30 minutes |
| Audio Preview | Audio output during the full-screen view                                                |
| Display Delay | Time the triggering camera is displayed as a full-screen image if an event occurs       |
| Layout        | Changes the camera layout in the preview                                                |

## Record

### Set-up

Open the main menu and click on Record:



The image shows a 'Recording Channel Configuration' dialog box. It contains the following settings: 'If HDD Full' set to 'Overwrite', 'Select Camera' set to '1', 'Enable EventPara' checked with 'Activity' selected, 'Stream Type' set to 'Audio&Video', 'Resolution' set to 'CIF', 'Frame Rate' set to '30(N)/25(P)', 'Bit Rate' set to '768 Kbps', 'Enable Rec' checked, 'PreRec Time' set to '5S', 'PostRec Time' set to '5S', and 'Copy to Camera' set to '1'. There are 'Confirm', 'Cancel', 'Schedule', and 'Copy' buttons. At the bottom, it shows 'admin 01-08-2010 17:30:01'.

### **i** Note

In addition to these settings, the schedule must be configured to start a recording.

### **i** Note

The maximum PreRec/PostRec time is dependent on the set bit rate. The lower the bit rate, the more memory is available for PreRec/PostRec.

|                       |                                                                                                                                                                                    |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| If HDD Full           | Overwrites or finishes recording                                                                                                                                                   |
| Select Camera         | Camera to be set                                                                                                                                                                   |
| Enable Event-Para     | Select this item to record events (motion detection or alarm)                                                                                                                      |
| Stream 1/<br>Stream 2 | Stream 1 = Parameter for continuous recording<br>Stream 2 = Parameter for event recording                                                                                          |
| Stream Type           | Video, video and audio                                                                                                                                                             |
| Resolution            | QCIF, CIF, 2CIF, DCIF, 4CIF                                                                                                                                                        |
| Frame Rate            | Number of images saved per second. The maximum number is dependent on the set resolution.                                                                                          |
| Bit Rate              | Data volumes per second. The recommended bit rate is set for each resolution. A bit rate lower than that recommended reduces the recording quality but extends the recording time. |
| Enable Rec            | Activates/deactivates camera recording                                                                                                                                             |
| PostRec Time          | Recording period after an alarm (in seconds)                                                                                                                                       |
| PreRec Time           | Recording period before an alarm (in seconds)                                                                                                                                      |
| Copy to Camera        | Copies the selected settings to other cameras (all or selected)                                                                                                                    |

### Schedule

The schedule is used to specify the recording times and triggers (recording type) for the cameras.

Click on Schedule:

Schedule

Day: Mon All Day: ☒ Rec. Type: Mot. Det.

|           | Start Time | End Time   | Rec Type |
|-----------|------------|------------|----------|
| Period 1: | 00 : 00    | -- 00 : 00 | AllTime  |
| Period 2: | 00 : 00    | -- 00 : 00 | AllTime  |
| Period 3: | 00 : 00    | -- 00 : 00 | AllTime  |
| Period 4: | 00 : 00    | -- 00 : 00 | AllTime  |

Copy to: Mon Copy

Confirm Cancel

admin 01-08-2010 17:30:41

1. Select the day.
2. Tick or untick the “All Day” box. When “All Day” is selected, defined times cannot be entered. The recording type then applies to the entire day.
3. Specify the recording type in the drop-down menu:
  - All Day
  - Motion detection
  - Alarm
  - Motion detection or alarm
  - Motion detection and alarm
4. To make specific time settings, untick the “All Day” box.
5. When making a specific time setting, you can define up to 4 time periods (each from 00:00 to 00:00). The times in the individual periods must not overlap.
6. Select the camera under “Copy to” or select “All”, then confirm by pressing “Copy”.

#### **i** Note

With All Day, you define time windows where there is continuous recording.

The other events (e.g. motion detection and/or alarm) only trigger the recording after the specific event has occurred.

### Manual record

1. Select “Manual Record” in the live view:

Manual Record

Chan: 1 2 3 4

Status: ☒ ☒ ☒ ☒

Start/Stop: ☒ ☐ ☐ ☐

Start All Stop All

admin 01-08-2010 17:44:59

2. Select the camera to start manual recording. Click on “Start/Stop” to do so.

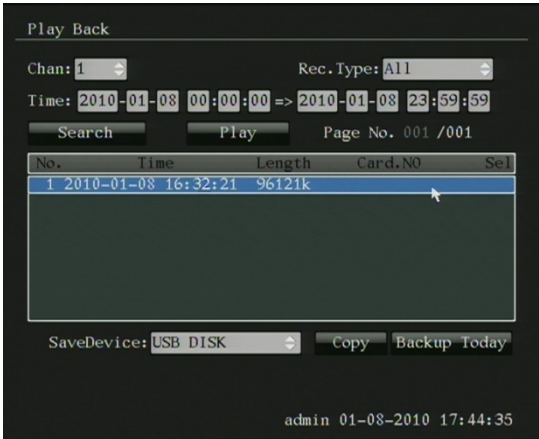
#### **i** Note

Click on “Start All” or “Stop All” to start or finish recording from all the connected cameras.

Playback

General information

- 1. Select “Play” in the live view.



- 2. To search for existing recordings, select the camera, recording type and time period.
- 3. Click on “Search” to search for relevant recordings. If there are more than 8 search results, they are listed on additional pages. Scroll through the pages by pointing the mouse on the front page number and turning the scroll wheel.
- 4. Select one or more entries and click on “Play” to play them back.
- 5. Click on “Copy” to back up the selected entries on USB or “Backup Today” to back up the entire day.

**i** Note

Data backup:  
After you start copying, the message “Waiting for USB medium...” appears. Now remove the USB mouse and connect a USB medium to back up the data. Copying starts automatically. You can also use the remote control supplied for the recorder at any time.

Using the control panel

The control panel is used for controlling the running playback. The symbols have the following meaning:



| No. | Meaning/function               |
|-----|--------------------------------|
| 1   | Reverses 30 seconds            |
| 2   | Reduces the playback speed     |
| 3   | Playback/Pause                 |
| 4   | Increases the playback speed   |
| 5   | Advances 30 seconds            |
| 6   | Switches audio playback on/off |
| 7   | Saves the recording            |
| 8   | Hides the control panel        |
| 9   | Digital zoom                   |
| 10  | Previous camera                |
| 11  | Next camera                    |

**i** Note

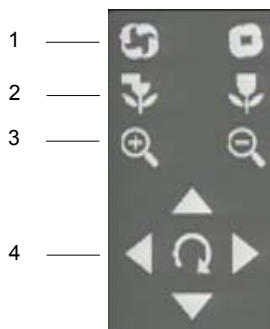
Data backup:  
If you press the “Save recording” button, the video currently being shown is saved temporarily until the button is pressed again. You can repeat this procedure as many times as you wish. After exiting Playback, you are prompted to back up on a USB medium the videos saved temporarily. If the videos are not backed up immediately after exiting Playback, they are deleted.

## PTZ control

### General information

PTZ control is used to access individual PTZ cameras and control them manually.

### Using the PTZ control panel



| No. | Meaning/function                    |
|-----|-------------------------------------|
| 1   | Iris                                |
| 2   | Focus                               |
| 3   | Zoom                                |
| 4   | Controls camera and starts patrol 1 |

### Pop-up menu for mouse operation



#### Note

Press the right mouse button when the cursor is positioned on a live image.

The following settings can be made. The arrow pointing to the right indicates that a sub-menu is opened for selection:



|         |                        |
|---------|------------------------|
| Channel | PTZ camera selection   |
| Preset  | Selects the set preset |
| Exit    | Exits PTZ mode         |

### PTZ settings

The following settings are necessary on the PTZ cameras:

1. Select the installed camera.
2. Enter the data of the connected camera. Ensure that the data matches that of the PTZ camera.
3. The PTZ ID is used to clearly identify and control the PTZ camera.
4. If several cameras of the same type are connected, then you can copy the settings to the other connections.
5. Exit the settings by pressing Apply and OK.



#### Note

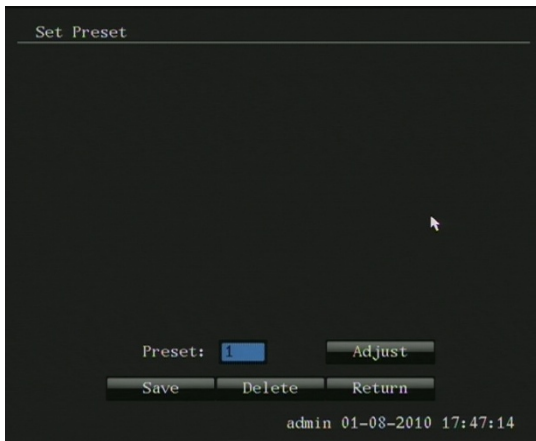
Check the settings of the PTZ cameras.

If a connected camera does not work correctly, then check the entered parameters (ID, baud rate, data bit etc.).

## Preset settings

Presets are previously defined locations of a PTZ camera. Various positions can be defined for each PTZ camera. The cameras can then pan and tilt quickly to the corresponding locations.

- Select PTZ in the menu and click on Preset Settings:

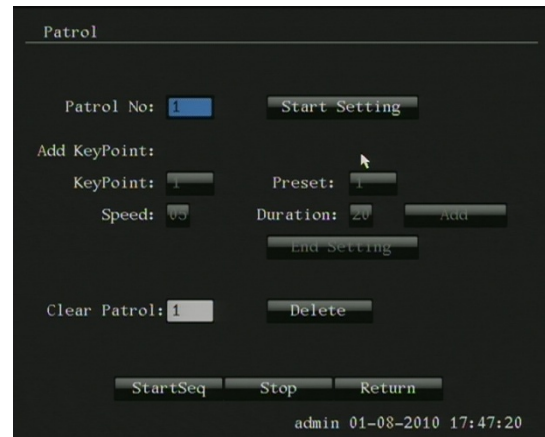


1. Select a preset number between 1 and 128.
2. Select Adjust to change the position of the camera.
3. Right-click to exit the PTZ control and click on Save to store the Preset position.
4. Repeat steps 1–3 to define further presets.
5. Finish your settings by pressing Return.

## Patrol settings

Patrols are defined tours from position to position that are accessed in sequence on the PTZ camera. The individual positions are presets, which should be set as detailed before. The cameras can then each be moved in sequence to the corresponding positions at a defined speed, where they remain for a set period of time.

- Select PTZ in the menu and click on Patrol Settings:



1. Press Start Setting.
2. Select patrol no. 1.
3. At Add KeyPoint, select a KeyPoint and assign a preset to it.
4. Set the duration and speed.
  - Patrol Preset: Sequence
  - Duration: Time that the PTZ camera waits at a position (in seconds)
  - Speed: Start-up speed
5. Accept the settings by pressing Confirm.
6. Exit the settings by pressing OK.

### **i** Note

A patrol consists of at least two preset positions. You can set several patrols for one camera.

The set patrol can be tested as follows:

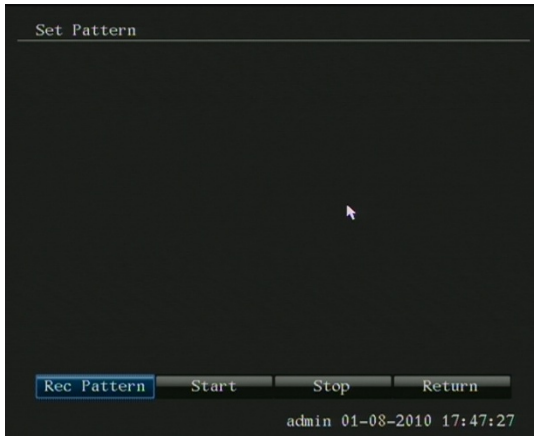
Click on StartSeq and monitor the patrol.

You can stop the patrol at any time by pressing EndSeq and repeat the patrol settings (e.g. to make corrections).

### Pattern settings

Patterns are defined tours from position to position that are accessed in sequence on the PTZ camera. Patterns are recorded almost live. The system saves the parameters used whilst you move and adjust the cameras in sequence to the corresponding positions at a defined speed.

- Select PTZ in the menu and click on Pattern Settings:



1. Click on Rec Pattern to start the pattern recording.
2. Using the control panel, adjust the camera position and settings that you wish to record as a pattern.
3. The recording is made until you right-click to finish the recording.

#### **i** Note

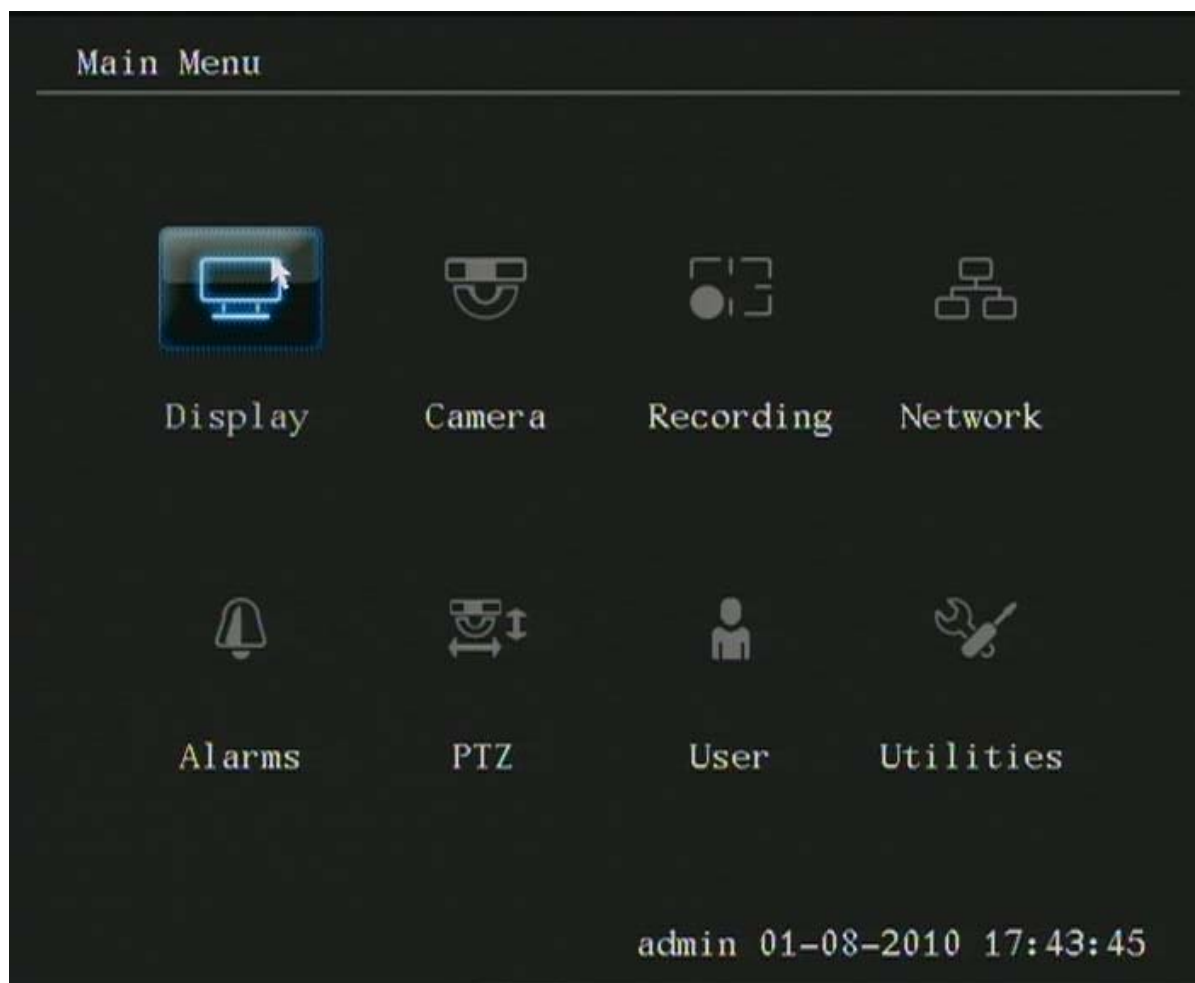
- Start the recorded pattern by calling up the pop-up menu (right-click in the live view of the PTZ camera).
- Click on Set Pattern and click on the desired pattern. The PTZ camera now starts moving to the individual positions. After running through the entire pattern, the process is started again.

### Device menu

#### Menu overview

The following overview shows all menus used to set and control the device.

- Click on a menu to open it.
- Right-click to close the menu overview.



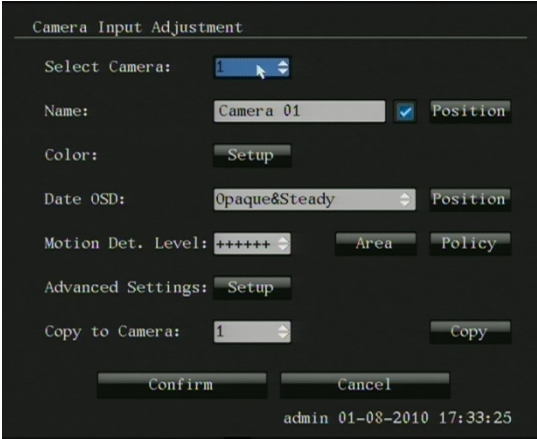
#### Menu description

| Menu      | Description                                                                                                                         |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------|
| Display   | Settings that affect the display                                                                                                    |
| Camera    | Camera name-specific settings, motion detection, video signal loss, tamper settings                                                 |
| Recording | Recording parameters and schedule                                                                                                   |
| Network   | Network, e-mail, DDNS and PPOE settings                                                                                             |
| Alarms    | Alarm input and output settings                                                                                                     |
| PTZ       | PTZ camera settings                                                                                                                 |
| User      | User administration                                                                                                                 |
| Utilities | Load default setting, firmware upgrade, HDD management, switch alarm output, restart/shut down recorder, log search and system info |

Display

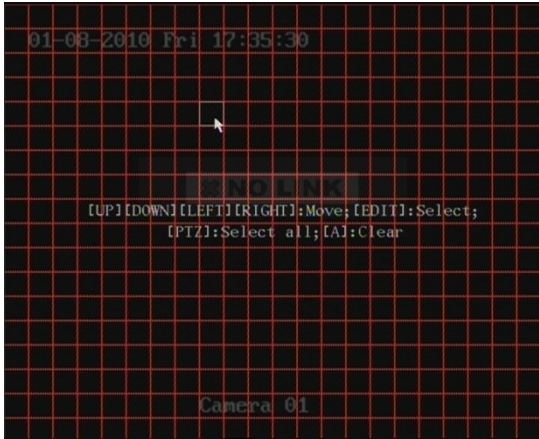
**i** Note  
See also the description on page 15.

Camera



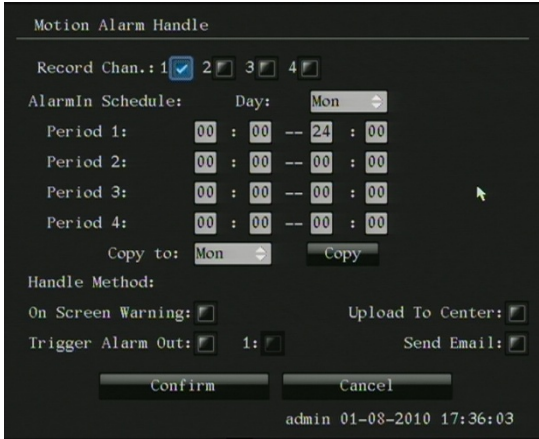
|                   |                                                                                                                                                                                                                                            |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Select Camera     | Camera selection                                                                                                                                                                                                                           |
| Name              | Camera names. Select position in the live image.                                                                                                                                                                                           |
| Color             | Choose settings to adjust the brightness, contrast, colour hue and saturation of the camera image.                                                                                                                                         |
| Date OSD          | Display type and position in the live image.                                                                                                                                                                                               |
| Motion Det. Level | This sets the sensitivity of the motion detection. The more “+” there are, the more sensitive the motion detection. Select Area to define a motion detection mask and Policy to set the reaction of the recorder after motion is detected. |
| Advanced          | Privacy mask, video signal loss and tampering.                                                                                                                                                                                             |
| Copy to Camera    | Copies the settings.                                                                                                                                                                                                                       |

Motion detection:  
Setting an area



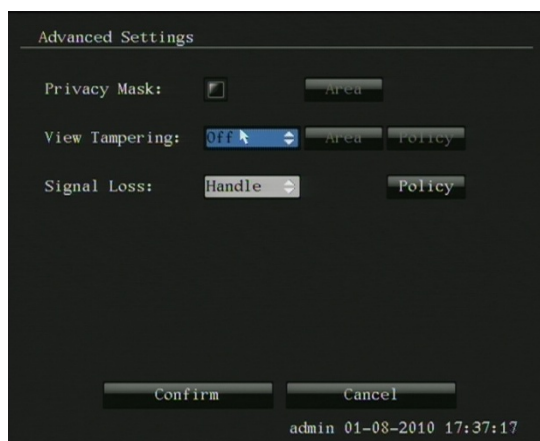
1. Press and hold down the left mouse button and select using red boxes the area to be detected.
2. Right-click to simply set full-screen detection or to exit the menu.

Motion detection: Settings



|                   |                                                     |
|-------------------|-----------------------------------------------------|
| Record Chan.      | Select a camera for recording.                      |
| Schedule          | Select the period to which the settings apply.      |
| On Screen Warning | Triggering camera is displayed in full-screen mode. |
| Upload to Center  | Notifies a PC with the ABUS DVR client software.    |
| Trigger Alarm Out | Alarm output is triggered.                          |
| Send Email        | Email is sent.                                      |

## Advanced settings



|              |                                                                                                                           |
|--------------|---------------------------------------------------------------------------------------------------------------------------|
| Privacy Mask | Hides areas in the live view and recording.                                                                               |
| Tampering    | Alarm is triggered when camera is covered. The Area and Policy settings correspond to Motion Detection described earlier. |
| Signal loss  | Alarm is triggered when signal is lost.                                                                                   |

## Recording



### Note

See also the description on page 17.

## Network

### General

It is essential that the network settings are correct when using remote control of the device and surveillance over a PC.



### Note

Please read the following basic instructions before setting up the device.

A network is a connection of at least two network-capable devices.

Transmission types:

- Wired networks (e.g. CAT5 cable)
- Wireless networks (WLAN)
- Other transmission types (Powerline)

All systems have certain similarities, but can also differ in many ways.

### Terms and definitions

An overview of relevant terms when using the device in a network can be found below.

| Parameter             | Setting                                                                                                                                                                                                           |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IP address            | An IP address is the unique address of a network device within a network.<br>This address may only appear once within a network. Certain IP address ranges are reserved for public networks (e.g. the Internet).  |
| Private address range | e.g. 10.0.0.0 – 10.255.255.255<br>Subnet mask: 255.0.0.0<br>172.16.0.0 – 172.31.255.255<br>Subnet mask: 255.255.0.0<br>192.168.0.0 – 192.168.255.255<br>Subnet mask: 255.255.255.0                                |
| Subnet mask           | A subnet mask is a bit mask used for making decisions and assignments during routing.<br>255.255.255.0 is the standard subnet mask in home networks.                                                              |
| Gateway               | A gateway is a network device which allows all other network devices to access the Internet.<br>This can be the computer connected to the DSL modem or – usually – the router or access point within the network. |

| Parameter   | Setting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name server | <p>The name server is responsible for assigning a unique IP address to a web address or URL (e.g. www.google.de). Also known as DNS (Domain Name Server).</p> <p>When a domain name is entered into a browser, the DNS searches for the corresponding IP address of the server and forwards the query on.</p> <p>The IP of the provider's DNS can be entered here. However, it is often sufficient to select the IP of the gateway. This then forwards the queries independently to the provider DNS.</p> |
| DHCP        | <p>The DHCP server automatically assigns the IP address, subnet mask, gateway and name server to a network device. DHCPs are available in current routers. The DHCP service must be specially set and activated (see the corresponding manual for more information).</p> <p>Note:</p> <p>When using fixed IP addresses and a DHCP server, make sure that the fixed IP addresses are outside the address range assigned by DHCP. Otherwise, problems could occur.</p>                                      |
| Port        | <p>A port is an interface used for communication by different programs. Certain ports are fixed (21: Telnet, 23: FTP), whilst others can be freely selected. Ports are important for different applications (e.g. external access to the device over a browser).</p>                                                                                                                                                                                                                                      |
| MAC address | <p>The MAC address (Media Access Control or Ethernet ID) is the specific hardware address of the network adapter. This is used for the unique identification of the device in a computer network.</p>                                                                                                                                                                                                                                                                                                     |

## Network configuration

The device must be configured using the Network menu.

The screenshot shows a 'Network' configuration screen. It has the following fields and buttons:

- IP: 192.168.1.50
- Port: 8000
- Mask: 255.255.255.0
- Gateway: 192.168.1.1
- Http Port: 80
- E-mail: Setup
- Advanced Settings: Setup
- PPPoE: Setup
- DDNS: Setup
- Confirm
- Cancel
- Status bar: admin 01-08-2010 17:42:03

|           |                                                                                                                                                                           |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IP        | IP address of the recorder in the network (manual assignment).<br>To assign the IP address by DHCP, enter the IP address as 0.0.0.0. The recorder must then be restarted. |
| Port      | Port 8000 is the standard port for accessing the recorder via the network.                                                                                                |
| Mask      | Usually 255.255.255.0.                                                                                                                                                    |
| Gateway   | Address of the gateway for Internet access.                                                                                                                               |
| Http Port | Port 80 is the standard port for accessing the recorder web server.                                                                                                       |
| E-mail    | Used to specify the e-mail settings which are sent as an email to a specific address in the event of an alarm.                                                            |
| Advanced  | MAC address, network speed, DNS, Multicast and NTP.                                                                                                                       |

## Network layout

The device must be physically connected to the network over a CAT5 cable (see connections on page 3). Several switches, routers and access points can be connected to each other. Firewalls and other security software can affect the network.



### Warning

When using a router, the network clients (e.g. the recorder) can be connected to the Internet and vice versa. Make sure to use protective measures to prevent unauthorised external access (e.g. firewall, changing passwords, changing ports)!

|       |                                                                                                                                                   |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| PPPoE | PPPoE is used on ADSL connections and when using modems in Germany.<br>Click on Set to enter the access data (ID and password) for your provider. |
| DDNS  | Server for Dynamic Domain Name System management. Used for updating host names or DNS entries.                                                    |

1. Enter the parameters of the e-mail notification.
2. Click on **Test** to send a test email.

**Note**

The device sends an e-mail to the specified recipients.

If the e-mail is not received, check the settings (including IP address, gateway and DNS) and correct them. If necessary, check the spam filter of your email client.

**Setting up an email address**

In the event of an alarm, the device can send a message by e-mail. Enter the email configuration here:

| Parameter         | Setting                                                                           |
|-------------------|-----------------------------------------------------------------------------------|
| Authentication    | Tick the box when authentication is made on the server of the Internet provider   |
| EmailTest         | Sends a test email                                                                |
| User              | E-mail account at the provider                                                    |
| Password          | Password connected to the email account                                           |
| Sender Name       | Name of the sender                                                                |
| Sender Address    | Corresponding e-mail address for the e-mail account                               |
| Email Server      | SMTP server of the sender's e-mail account                                        |
| Mail Receiver No. | Select three possible recipients for the email                                    |
| Name              | Enter the name of the recipient here                                              |
| Address           | Enter the e-mail address of the recipient here                                    |
| Attachment JPEG   | Tick the box when camera images should also be sent with the email as photo files |
| Interval          | Interval with which images are sent                                               |

### Advanced settings

Advanced Settings

Mac: 00:40:44:92:06:03

NIC Type: 10M/100M Auto

DNS: 0 .0 .0 .0

MCastIP: 0 .0 .0 .0

Remote Host IP: 0 .0 .0 .0

Remote Host Port: 0

NTP: ☒

Time zone: GMT 00:00 Check Time: 00 Hours

NTP Host:

Confirm Cancel

admin 01-08-2010 17:42:29

|                  |                                                                                                                                                                                                                 |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MAC              | MAC address of the recorder                                                                                                                                                                                     |
| NIC type         | Transmission speed of the network connection                                                                                                                                                                    |
| DNS              | Fixed IP address when PPPOE is used                                                                                                                                                                             |
| MCastIP          | To minimise traffic, you can also enter the multicast IP. The IP address must correspond with the address in the video surveillance software! The IP range available is limited to 224.0.0.0 - 239.255.255.255. |
| Remote Host IP   | No Function.                                                                                                                                                                                                    |
| Remote Host Port | No Function.                                                                                                                                                                                                    |
| NTP              | Network Time Protocol<br>Activates server for time synchronisation.                                                                                                                                             |
| Time zone        | Recorder time zone                                                                                                                                                                                              |
| NTP Host         | IP address of the computer for time synchronisation                                                                                                                                                             |

### Setting up PPPOE manually

PPPOE Setup

PPPoE: ☒

User name: hzhz02857301

Password: \*\*\*\*\*

Verify: \*\*\*\*\*

Confirm Cancel

admin 01-08-2010 17:42:52

1. Tick the PPPOE box, enter the user name (Internet access ID) and password, then confirm the password.
2. Apply the settings by pressing Confirm.

### Setting up DDNS manually

DDNS Setup

Enable DDNS: ☒

Protocol: ABUS DDNS

Server Address: 62.153.88.107

Server Port: 80

Host Name:

User name:

Password:

Verify:

Confirm Cancel

admin 01-08-2010 17:43:02

1. To use the ABUS DDNS function, you must first set up an account under [www.eytronserver.com](http://www.eytronserver.com). Please note the FAQs on the website when doing this.
2. Tick the DDNS box, enter "ABUS DDNS" as the "DDNS Type" and then enter "62.153.88.107" under "Server Address".
3. Apply the settings by pressing Confirm. The IP address of your Internet connection is now updated on the server every minute.



#### Note

To be able to access the recorder externally, port forwarding must be set up in your router.

## Alarms

Alarms

Select Alarm In: 1 Alarm Type: N.O.

Alarm Handling: Handle Policy PTZ Linkage

Copy to Alarm In: 1 Copy

Alarm Out: 1 Time: 5S

Alarm Out Time: Schedule

Exceptions: Setup

Confirm Cancel

admin 01-08-2010 17:26:43

## Alarm In Handling

Alarm In Handling

Record Camera: 1 2 3 4

Alarm In Schedule: Day: Mon

Period 1: 00 : 00 -- 00 : 00

Period 2: 00 : 00 -- 00 : 00

Period 3: 00 : 00 -- 00 : 00

Period 4: 00 : 00 -- 00 : 00

Copy to: Mon Copy

Response Policy:

On Screen Warning: On Screen Warning Upload To Center: Upload To Center

Trigger Alarm Out: Trigger Alarm Out 1: 1 Send Email: Send Email

Confirm Cancel

admin 01-08-2010 17:27:09

In the event that the alarm input is triggered, the following policies can be started:

| Parameter         | Setting                                             |
|-------------------|-----------------------------------------------------|
| Record Camera     | Select a camera for recording.                      |
| Schedule          | Select the period to which the settings apply.      |
| On Screen Warning | Triggering camera is displayed in full-screen mode. |
| Upload to Center  | Notifies a PC with the ABUS DVR client software.    |
| Trigger Alarm Out | Alarm output is triggered.                          |
| Send Email        | Email is sent.                                      |

## PTZ

PTZ Linkage

Select Camera: 1

Enable Preset: ☒

Preset: 1

Enable Patrol: ☒

Patrol No: 1

Enable Pattern: ☒

Confirm Cancel

admin 01-08-2010 17:28:40

You can define here whether a PTZ camera carries out a policy as soon as an alarm input is triggered.

|                  |                                                                                                                                                                               |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Select Alarm In  | Select the alarm input to be set, from 1 to 4.                                                                                                                                |
| Alarm Type       | N.O.: Normally open circuit<br>N.C.: Normally closed circuit                                                                                                                  |
| Alarm Handling   | This defines whether a policy is performed in the event of an alarm.                                                                                                          |
| Policy           | This sets the event policy for the alarm input.                                                                                                                               |
| PTZ Linkage      | This specifies whether the PTZ camera starts up a preset.                                                                                                                     |
| Copy to Alarm In | Copy the alarm settings to further alarm inputs.                                                                                                                              |
| Alarm Out        | Displays the alarm output (fixed value).                                                                                                                                      |
| Time             | Enter here how long the alarm output is switched. If you select "Manual", the alarm output is only deactivated when "Alarm output stop" in the "Utilities" menu is confirmed. |
| Alarm Out Time   | This specifies in the schedule when the alarm output is activated.                                                                                                            |
| Exceptions       | You can define policies here for various events, e.g. email notification.                                                                                                     |

## Device menu

### Exceptions

Exceptions

Exception: **HardDiskFull**

Handle Method:

Upload To Center: ☐

Trigger Alarm Out: ☐

AlarmOut1: ☐

Send Email: ☒

Confirm Cancel

admin 01-08-2010 17:28:03

| Parameter         | Setting                                          |
|-------------------|--------------------------------------------------|
| Exception         | Event requiring a reaction.                      |
| Upload to Center  | Notifies a PC with the ABUS DVR client software. |
| Trigger Alarm Out | Alarm output is triggered.                       |
| Send Email        | Email is sent.                                   |

### PTZ



#### Note

See description on page 20 .

### Users

User

| No. | Name  |
|-----|-------|
| 1   | admin |

Add Del

Password: \*\*\*\*\*

Verify: \*\*\*\*\*

Default Privileges Set Privileges

Confirm Cancel

admin 01-08-2010 17:31:39

You can manage up to 16 users with different privileges here.

|                    |                                                        |
|--------------------|--------------------------------------------------------|
| Default Privileges | Selected user receives the default privileges.         |
| Set Privileges     | You can set the privileges for the selected user here. |

### Setting privileges

Set Right

Local: PTZCtrl: ☒ Record: ☐ SetPara: ☐  
Log: ☒ Util: ☐

Remote: PTZCtrl: ☒ Record: ☐ SetPara: ☐  
Log: ☒ Util: ☐ Talk: ☐  
Alarm: ☐ LocalOut: ☐ COM Ctrl: ☐

User's MAC Addr: 00:00:00:00:00:00

Chan: 1 2 3 4

LocalPlay: ☒ ☒ ☒ ☒  
RemotePlay: ☒ ☒ ☒ ☒  
RemoteWatch: ☐ ☐ ☐ ☐

Confirm Cancel

admin 01-08-2010 17:32:32

You can define here the Local and Remote privileges for the user. Click "Default Privileges" to assign the Default Privileges to the selected user.



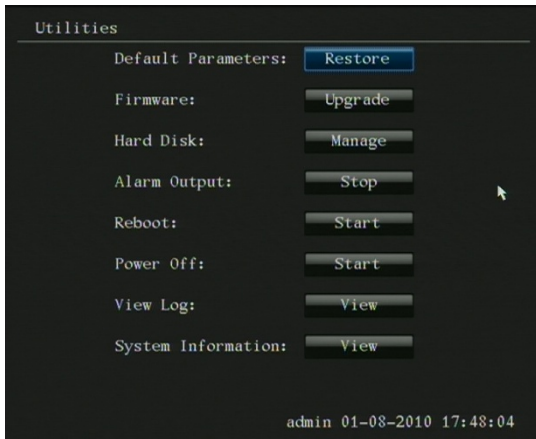
#### Note

The user can make the settings locally (i.e. on the device) or change the parameters.

The user can access the device remotely via the network connection.

| Parameter       | Setting                                                                                                       |
|-----------------|---------------------------------------------------------------------------------------------------------------|
| PTZCtrl         | Changes PTZ settings                                                                                          |
| Record          | Starts/finishes manual recording                                                                              |
| SetPara         | Changes settings                                                                                              |
| Log             | Searches log                                                                                                  |
| Util            | Updates firmware, formats HDD, restarts and shuts down recorder                                               |
| Talk            | Voice message via network                                                                                     |
| Alarm           | Switches alarm output                                                                                         |
| LocalOut        | Controls video output                                                                                         |
| RS232           | No function                                                                                                   |
| User's MAC Addr | Here you can enter the MAC address of a client PC. The user can only connect from a PC with this MAC address. |
| LocalPlay       | Determines which cameras are displayed locally during playback.                                               |
| RemotePlay      | Determines which cameras are displayed remotely during playback.                                              |
| RemoteWatch     | Determines which cameras are displayed remotely in Watch.                                                     |

## Utilities



|                    |                                                                     |
|--------------------|---------------------------------------------------------------------|
| Default Parameters | Loads default parameters                                            |
| Firmware           | Use for firmware upgrade                                            |
| Hard Disk          | Formats HDDs                                                        |
| Alarm Output       | Switches alarm output manually                                      |
| Reboot             | Reboots recorder                                                    |
| Power Off          | Switches off recorder                                               |
| View Log           | Searches log                                                        |
| System Information | Device name, model, serial number, firmware version, encode version |

## Firmware

### **i** Note

You can upgrade the firmware via FTP in the local network or by USB. After you select the USB, the message "Waiting for USB medium..." appears. Now remove the USB mouse and connect a USB stick with the new firmware file. The upgrade process starts automatically. You can also use the remote control supplied for the recorder at any time.

## Troubleshooting

Before calling the Service department, read the following information to determine the possible cause of a malfunction.

| Malfunction                                                                      | Cause                                                                                                                                                                                                                 | Solution                                                                                                                                                                             |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| No power                                                                         | Mains cable not connected                                                                                                                                                                                             | Connect the mains cable securely to the socket                                                                                                                                       |
|                                                                                  | Power switch set to OFF                                                                                                                                                                                               | Turn the power switch to ON                                                                                                                                                          |
|                                                                                  | No current in the power socket                                                                                                                                                                                        | Use another device on the socket, where necessary                                                                                                                                    |
| No image                                                                         | Screen not set for reception                                                                                                                                                                                          | Set the correct video input mode until an image from the recorder appears                                                                                                            |
|                                                                                  | Video cable not connected properly                                                                                                                                                                                    | Connect the video cable securely                                                                                                                                                     |
|                                                                                  | Connected modem is switched off                                                                                                                                                                                       | Switch on the monitor                                                                                                                                                                |
| Camera images black and white and blurred, despite colour camera being installed | If no cameras are connected when the recorder is started, then the recorder is started automatically in NTSC mode. If only PAL colour cameras are connected, then these are displayed as black and white and blurred. | Connect the cameras before starting the recorder. The recorder automatically detects whether a PAL or NTSC signal is present and switches to the correct mode. You can set the mode. |
| No sound                                                                         | Audio cables not connected properly                                                                                                                                                                                   | Connect the audio cables securely                                                                                                                                                    |
|                                                                                  | Devices connected over the audio cables are not switched on                                                                                                                                                           | Switch on the devices connected over the audio cables                                                                                                                                |
|                                                                                  | Audio connection cable is damaged                                                                                                                                                                                     | Replace the cable                                                                                                                                                                    |
| HDD not working                                                                  | Connection cables not connected properly                                                                                                                                                                              | Connect the cables securely                                                                                                                                                          |
|                                                                                  | HDD defective or not system-compatible                                                                                                                                                                                | Replace with a recommended HDD                                                                                                                                                       |
| USB port not working                                                             | Device not supported                                                                                                                                                                                                  | Connect a compatible USB medium (USB 2.0)                                                                                                                                            |
|                                                                                  | USB hub is in use                                                                                                                                                                                                     | Connect the USB medium directly                                                                                                                                                      |
| Network access not possible                                                      | Network cable connections are loose                                                                                                                                                                                   | Connect the network cable                                                                                                                                                            |
|                                                                                  | Network settings are incorrect (DHCP, IP address etc.)                                                                                                                                                                | Check the network configuration and correct it, when necessary.                                                                                                                      |
| Remote control not working                                                       | Batteries inserted with the wrong polarity or are empty                                                                                                                                                               | Replace the batteries. To control the device with the remote control, point it at the remote control sensor on the device                                                            |
|                                                                                  | Remote control too far away from the recorder                                                                                                                                                                         | Use the remote controller within 7 metres from the device                                                                                                                            |
|                                                                                  | Signal blocked by obstruction between the remote control and recorder                                                                                                                                                 | Remove the obstruction                                                                                                                                                               |
|                                                                                  | Lighting too bright or fluorescent tubes in use?                                                                                                                                                                      | Switch off strong fluorescent lighting in the immediate vicinity                                                                                                                     |
| Recording not possible                                                           | No HDD or HDD is not initialised                                                                                                                                                                                      | Install and initialise the HDD                                                                                                                                                       |
| Sudden deactivation of the device                                                | Temperature inside the device is too high                                                                                                                                                                             | Clean the device and remove any obstructions from the ventilation area                                                                                                               |

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## Technical data

| TVVR30001 4-channel compact digital recorder   |                                                                                                                                                         |                                                                                                                                                          |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Video compression                              | H.264                                                                                                                                                   |                                                                                                                                                          |
| Hybrid-compatible                              | -                                                                                                                                                       |                                                                                                                                                          |
| Camera inputs                                  | 4 x BNC (1.0 V p-p, 75 Ω)                                                                                                                               |                                                                                                                                                          |
| Camera outputs                                 | -                                                                                                                                                       |                                                                                                                                                          |
| IP cameras                                     | -                                                                                                                                                       |                                                                                                                                                          |
| IP camera protocols                            | -                                                                                                                                                       |                                                                                                                                                          |
| Monitor outputs                                | Monitor: 1 x BNC (1.0 V p-p, 75 Ω)<br>Spot: 1 x BNC (1.0 V p-p, 75 Ω)<br>VGA: 1 x VGA                                                                   |                                                                                                                                                          |
| Operating mode                                 | Triplex                                                                                                                                                 |                                                                                                                                                          |
| Resolution (live view)                         | PAL: 704 x 576 (4CIF), NTSC: 704 x 480 (4CIF)<br>VGA 1024 x 768                                                                                         |                                                                                                                                                          |
| Resolution @ frame rate per camera (recording) | PAL:<br>176 x 144 (QCIF) @ 25 fps,<br>352 x 288 (CIF) @ 25 fps,<br>704 x 288 (2CIF) @ 12 fps,<br>528 x 384 (DCIF) @ 12 fps,<br>704 x 576 (4CIF) @ 6 fps | NTSC:<br>176 x 144 (QCIF) @ 25 fps,<br>352 x 240 (CIF) @ 30 fps,<br>704 x 288 (2CIF) @ 12 fps,<br>528 x 384 (DCIF) @ 12 fps,<br>704 x 576 (4CIF) @ 6 fps |
| Total frame rate                               | PAL: 100 fps, NTSC: 120 fps                                                                                                                             |                                                                                                                                                          |
| Compression levels                             | 6                                                                                                                                                       |                                                                                                                                                          |
| Pre-alarm/post-alarm memory                    | 0 ~ 30 sec. / 5–600 sec.                                                                                                                                |                                                                                                                                                          |
| Storage medium                                 | 1 x SATA HDD                                                                                                                                            |                                                                                                                                                          |
| Data backup                                    | 1 x USB 2.0                                                                                                                                             |                                                                                                                                                          |
| Views                                          | 1/4                                                                                                                                                     |                                                                                                                                                          |
| Recording modes                                | Manual, schedule, motion detection, alarm                                                                                                               |                                                                                                                                                          |
| Search modes                                   | By date and time                                                                                                                                        |                                                                                                                                                          |
| Alarm inputs (NO/NC)                           | 4 (Loading capacity: 12VDC/1A)                                                                                                                          |                                                                                                                                                          |
| Relay outputs                                  | 1                                                                                                                                                       |                                                                                                                                                          |
| User levels                                    | 2 (max. 16 users)                                                                                                                                       |                                                                                                                                                          |
| Network connection                             | RJ45 10/100 Mbps                                                                                                                                        |                                                                                                                                                          |
| Parallel network access                        | 24 camera connections                                                                                                                                   |                                                                                                                                                          |
| Network functions                              | Live view, playback, data export, settings                                                                                                              |                                                                                                                                                          |
| DDNS                                           | √                                                                                                                                                       |                                                                                                                                                          |
| NTP                                            | √                                                                                                                                                       |                                                                                                                                                          |
| PTZ control                                    | RS-485                                                                                                                                                  |                                                                                                                                                          |
| PTZ protocols                                  | LG-MULTIX, PELCO-D, PELCO-P, Samsung                                                                                                                    |                                                                                                                                                          |
| Alarms                                         | OSD signal, email                                                                                                                                       |                                                                                                                                                          |
| Audio                                          | Audio In: 1 x Cinch (2.0 V p-p, 1000 Ω)<br>Audio Out: 1 x Cinch (600 Ω)                                                                                 |                                                                                                                                                          |
| Control                                        | Mouse, remote control                                                                                                                                   |                                                                                                                                                          |
| Software                                       | Client software                                                                                                                                         |                                                                                                                                                          |
| OSD languages                                  | German, English, French, Dutch, Danish                                                                                                                  |                                                                                                                                                          |
| Power supply                                   | 12 V DC                                                                                                                                                 |                                                                                                                                                          |
| Power consumption                              | < 40 W                                                                                                                                                  |                                                                                                                                                          |
| Operating temperature                          | -10 °C ~ +55 °C                                                                                                                                         |                                                                                                                                                          |
| Dimensions (WxHxD)                             | 315 x 45 x 210 mm                                                                                                                                       |                                                                                                                                                          |
| Weight                                         | ≤ 2.8 kg                                                                                                                                                |                                                                                                                                                          |
| Certification                                  | CE                                                                                                                                                      |                                                                                                                                                          |

Subject to alterations and errors. The dimensions are approximate values.

Company names and associations listed here are trademarks or registered trademarks of their respective owners.

## Technical data

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### HDD storage capacity

In addition to the actual storage capacity of the installed HDD, the required storage space for recording and surveillance depends on the set resolution and frame rate of the recording.

#### TVVR30001

Continuous recording, 1 x 1 TB HDD:

| Number of cameras | Resolution | FPS | Recommended bit rate | Recording time     |
|-------------------|------------|-----|----------------------|--------------------|
| 4                 | CIF        | 25  | 512                  | 41 days, 5 hours   |
| 4                 | CIF        | 16  | 384                  | 54 days, 23 hours  |
| 4                 | CIF        | 8   | 192                  | 109 days, 22 hours |
| 4                 | 4CIF       | 6   | 128                  | 164 days, 21 hours |
| 4                 | 4CIF       | 6   | 512                  | 41 days, 5 hours   |

30 days continuous recording:

| Number of cameras | Resolution | FPS | Recommended bit rate | Number of HDDs |
|-------------------|------------|-----|----------------------|----------------|
| 4                 | CIF        | 25  | 512                  | 1 x 1 TB       |
| 4                 | CIF        | 16  | 384                  | 1 x 1 TB       |
| 4                 | CIF        | 8   | 192                  | 1 x 1 TB       |
| 4                 | 4CIF       | 6   | 128                  | 1 x 1 TB       |
| 4                 | 4CIF       | 6   | 512                  | 1 x 1 TB       |

On the included CD you can find a program in order to calculate the required amount of memory. In addition you find this software for download on our homepage together with the ABUS CMS software.

### Disposal

#### Information on the EU directive on waste electrical and electronic equipment

To protect the environment, do not dispose of the device with domestic waste at the end of its service life. It can be disposed of at one of the appropriate collection points in your country. Please obey your local regulations when disposing of material.



Dispose of the device in accordance with EU directive 2002/96/EC – WEEE (Waste Electrical and Electronic Equipment). If you have any questions, please contact the department of your local authority which is responsible for waste disposal. Used equipment can be disposed of, for example, by your local or municipal authority, the local waste disposal company or your dealer.

#### Information on handling batteries

- Always insert batteries with the correct polarity. Never attempt to recharge the batteries supplied and do not throw them into naked flames under any circumstances. Do not use different batteries at the same time (old and new, alkaline and zinc-carbon etc.). Remove the batteries if the device is not used for a long period of time. If used improperly, there is a risk of explosion and leaking batteries!
- Take environmental protection into account – used batteries should not be disposed of in domestic waste! They must be taken to a collection point for used batteries.
- Make sure that batteries are kept away from small children. Children may put batteries in their mouths and swallow them. This can cause serious harm to their health. If this happens, consult a doctor immediately.
- Do not charge normal batteries, heat them up or throw them into naked flames (they may explode).

- Change low batteries in good time.
- Always change all the batteries at the same time and use batteries of the same type.



#### Important

Leaky or damaged batteries can cause chemical burns on contact with the skin.

- ▶ In this case, wear protective gloves.
- ▶ Clean the battery compartment with a dry cloth.

#### Important information on disposing of batteries

Your product uses batteries which are subject to the European directive 2006/66/EC and may not be disposed of with domestic waste.

Find out about the regulations for the separate collection of batteries which apply in your country.

Proper disposal of batteries helps prevent harm to health and the environment.

Batteries that contain harmful chemicals are labelled with these signs:



Pb = battery contains lead

Cd = battery contains cadmium

Hg = battery contains mercury

#### Information on the European RoHS directive

The device complies with the RoHS directive.

Compliance with the RoHS directive means that the product or component does not contain more than the following maximum concentrations of the following substances in homogeneous materials, unless the substance is part of an application that is excluded from the RoHS directive:

- 0.1% lead (by weight)
- Mercury
- Hexavalent chromium
- Polybrominated biphenyl (PBB) and polybrominated diphenyl ether
- 0.01% cadmium (by weight)

## Glossary

### Overview of specialist terms

|                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1080i</b><br>HDTV image signal with 1080 pixels and interlaced display.                                                                                                                                                                                                                                                                                                                         | <b>GIGABYTE</b><br>Unit of capacity for storage media (HDD, USB, SD/MMC cards).                                                                                                                                                                |
| <b>16:9</b><br>Cinematographic aspect ratio on widescreen displays.                                                                                                                                                                                                                                                                                                                                | <b>H.264</b><br>(MPEG-4 AVC) – Standard method for the highly-efficient compression of video signals. Used on Blu-ray discs or video conference systems, for example.                                                                          |
| <b>720p</b><br>HDTV image signal with 1280 x 720 pixels and progressive display.                                                                                                                                                                                                                                                                                                                   | <b>HDD</b><br>Hard Disk Drive<br>Digital data storage on computers or DVRs.                                                                                                                                                                    |
| <b>CIF</b><br>Common Intermediate Format<br>Originally planned for converting PAL to the NTSC standard. CIF corresponds to a video resolution of 352 x 288 pixels (2CIF = 704 x 288 pixels; 4CIF = 704 x 576 pixels).                                                                                                                                                                              | <b>HDVR</b><br>Hybrid DVR – DVR used for recording analogue cameras and network cameras.                                                                                                                                                       |
| <b>CINCH</b><br>Socket type used for analogue audio or CVBS video signals.                                                                                                                                                                                                                                                                                                                         | <b>http</b><br>Hypertext Transfer Protocol<br>Method for transmitting data across networks. Primarily used for displaying websites in a browser.                                                                                               |
| <b>CVBS</b><br>Colour, Video, Blank and Sync – The simplest variation of video signals (also known as composite video). The image quality is comparatively low.                                                                                                                                                                                                                                    | <b>Inch</b><br>Typical unit of screen size. One inch is equivalent to 2.54 centimetres. The most common sizes of 16:9 displays are 26 inch (66 cm), 32 inch (81 cm), 37 inch (94 cm), 42 inch (106 cm), 50 inch (127 cm) and 65 inch (165 cm). |
| <b>DDNS</b><br>Dynamic Domain Name System entry<br>Network service which provides and updates IP addresses of its clients in a database.                                                                                                                                                                                                                                                           | <b>INTERLACED</b><br>Method for improving the picture quality of a video signal without consuming extra bandwidth (scan pattern on every second line).                                                                                         |
| <b>DHCP</b><br>Dynamic Host Configuration Protocol<br>Network protocol which allows the automatic connection of devices (clients) in existing networks. DHCP servers (e.g. Internet routers) automatically assign the IP address, network mask, gateway, DNS server and WINS server (when required). Only the automatic acquisition of IP addresses must be activated for the client in this case. | <b>IP address</b><br>An address in the computer network based on the Internet protocol. Allows different devices to identify themselves in a network so that they are accessed specifically.                                                   |
| <b>Domain</b><br>Name used for the identification of websites on the Internet (e.g. www.abus-sc.de).                                                                                                                                                                                                                                                                                               | <b>JPEG</b><br>Compression method for photo images with minimal loss. Most digital cameras save photos in JPEG format.                                                                                                                         |
| <b>Dual stream</b><br>Dual stream is a video transmission method. A high-resolution recording and lower-resolution transmission are made over the network, for example. The main stream has a 4CIF resolution and the sub-stream has a CIF resolution.                                                                                                                                             | <b>MPEG</b><br>Moving Picture Experts Group. International standard for the compression of moving images. On some DVDs, the digital audio signals are compressed and recorded in this format.                                                  |
| <b>DVR</b><br>Digital Video Recorder – A device used for recording different video and audio sources (analogue, digital). The data is compressed for recording and saved on hard disk drives (HDD).                                                                                                                                                                                                | <b>NTP</b><br>Network Time Protocol<br>Method for synchronising the time across networks. SNTP (Simple Network Time Protocol) is also available, offering a simplified protocol.                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                                    | <b>NTSC</b><br>Standard colour television format in the USA. The method is different from the European PAL system in cer-                                                                                                                      |

---

tain ways. A full-screen NTSC image is comprised of 480 visible lines and a total of 525 lines. 60 half-images are displayed per second. Compared to PAL, the system is more susceptible to colour errors.

### **PAL**

Phase Alternating Line – European colour TV system. Uses 576 visible image lines. Together with the lines used for signal management, a full-screen image is comprised of 625 lines. 50 half-images are displayed per second. The phase position of the colour signal changes from line to line in the image.

### **PANEL**

Interior of a flatscreen display (e.g. LCD or plasma panels).

### **PC**

Personal Computer – Can be used as a remote site, either with the software supplied or over a browser.

### **Pixel**

Short for “picture element”, the smallest unit for digital image transmission or display.

### **PIP**

Picture in Picture – Where two signal sources are shown on the screen at the same time. The second signal source is stored above the first.

### **PPPoE**

PPP over Ethernet (point-to-point protocol)

Network transmission method used for establishing a connection over dial-up lines. Used in ADSL connections, for example.

### **PROGRESSIVE**

Method for displaying, storing or transmitting moving images in which all the lines of each frame are drawn in sequence. This is in contrast to the interlacing used in traditional television systems.

### **PTZ**

Pan-Tilt-Zoom

Pan, tilt and zoom function on motor-driven cameras.

### **RESOLUTION**

Normal PAL television systems show images in 576 lines, normally with 768 pixels. HDTV works with at least 1280 x 720 pixels.

### **SCREEN SIZE**

Size of the display from the bottom-left corner to the top-right corner in inches or centimetres.

### **Browser**

Program for viewing websites on the Internet.

### **USB**

Universal Serial Bus

Serial bus connection, used for connecting media whilst in operation. Maximum data rate for USB 2.0: approx. 320 Mbit/s (approx. 40 MB/s).

### **VGA**

Video Graphics Array – Standard interface for analogue video signals in PCs (primarily deals with RGB signals).

## Internal HDD

The internal hard disk drive (HDD) is very sensitive. Operate the device according to the following instructions in order to avoid drive errors. Important recordings should be backed up on external media to avoid unexpected data loss.



### Note

- Do not move the device during operation.
- Moisture inside the device can condense and lead to HDD malfunctions.
- When the device is turned on, never remove the mains plug from the socket or interrupt the power supply using the safety switch.
- Do not move the device immediately after switching it off. To move the device, carry out the following steps:
  1. Wait until OFF has been shown on the display for at least two minutes.
  2. Remove the mains plug from the socket.
  3. Move the device.
- Data on the HDD can be lost in the event of a power failure during operation. Use an uninterruptible power supply (UPS)!
- The HDD is very sensitive. Improper use or unsuitable surroundings can damage the HDD after some years of use. This may be indicated by the playback stopping unexpectedly or visible “mosaic” effects in the image. In some circumstances, there are no prior signs of a HDD malfunction.
- In the event of a malfunction, no recordings can be played. The HDD must be replaced in this case.

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## **ABUS Compact Digital Recorder**

TVVR30001

Manufacturer:  
ABUS Security-Center GmbH & Co. KG  
Linker Kreuthweg 5  
86444 Affing (Germany)